



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,272	02/09/2004	Shusaku Kido	N1150-U-1d	8565

21254 7590 09/07/2006

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

DUDA, KATHLEEN

ART UNIT PAPER NUMBER

1756

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary	Application No. 10/773,272	Applicant(s) KIDO, SHUSAKU	
	Examiner Kathleen Duda	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 17-47 are pending in this application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 17-47 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for reflowing a patterned organic layer, does not reasonably provide enablement for reflowing an organic layer (i.e., not patterned). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. All of the claims recite an "organic layer" which is reflowed. For example, page 4 of the specification teaches that the invention reflows a patterned organic layer.

Applicant argues that the specification must be taken as a whole. The examiner agrees. The title, page 4 starting at line 1 and the specification teach that the layer is patterned which is reflowed. It is not clear to the

examiner that the specification teaches an embodiment wherein the layer is not patterned before reflowing occurs.

4. Claims 17-47 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for reflowing by exposure to an organic solvent or heat, does not reasonably provide enablement for reflowing at a temperature of 15 to 40 degrees Centigrade. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The specification (see page 4 for example) teaches the treatment includes exposure to the vapor of an organic solvent at 15 to 40 degrees Centigrade or heat at 50-300 degrees Centigrade to cause the reflow.

Applicant argues that the specification teaches reflowing of the layer at a temperature of 15-40 degree Centigrade and cites page 11, lines 11-15 for support. This part of the specification clearly teaches that the layer is exposed at a temperature of 15-40 degree Centigrade **and** exposed to an acetone-carrying gas. It is not the temperature range which causes the reflow but the combination of the temperature and gas. The examiner is reading the specification as a whole. It is the examiner's position that undue experimentation would be required to go from a claim reciting a temperature

range of 15-40 degree Centigrade (which includes room temperature) to a combination of the temperature range and an acetone-carrying gas.

5. Claims 19, 29,31 and 40 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the thickness of the deformed organic layer being one-fifth, one-tenth or one-half the thickness of the organic layer, does not reasonably provide enablement for the thickness of the deformed organic layer being one-third or less of the thickness of the organic layer. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The specification teaches that the deformed organic layer is one-fifth, one-tenth or one-half of the thickness of the organic layer (see, for example, page 11 of the specification). The specification does not have the teaching of one-third as recited in claim 19.

The claims have been amended to recite "less than a half of the thickness". There is still not support for this range recitation as stated above. The specification teaches the range points above.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 17-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites that the layer is exposed to a temperature of 50-300 degrees Centigrade. It is not clear if this is a separate step or the same heating recited in claim 17. If it is the same heating step as claim 17, the limitation is not further limiting. If it is a separate step, it is not clear when it occurs since the specification does not teach the combination of the exposure to the organic solvent and a high-temperature exposure.

Applicant states that claim 17 does not contain a heating step. The step reciting a temperature of 15-40 degree Centigrade contains elevated temperatures. Clarification is requested as to if the heating step recited in claim 23 is separate from that step.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either

anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 17-47 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 6, 10, 17-19, 22-24, 27-33, 37-39 and 43-45 of U.S. Patent No. 6,756,187. Although the conflicting claims are not identical, they are not patentably distinct from each other because the current claims recite a process of reflowing an organic layer and the patent claims recite a process of deforming the layer before it is removed. A restriction requirement between the claims was not made in the parent case.

Applicant argues that an organic layer is not formed in the patent while the current invention requires such a step. It is inherent that the organic layer in the patent must be formed before it can be treated as recited in the claims.

Applicant argues that the current invention does not recite peeling the layer. Open claim language is used which does not preclude the peeling or otherwise removal of the layer after treatment.

10. Claims 17-47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 7, 9-14, 17 and 19-21 are of copending Application No. 11/329,452.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the co-pending application recites infiltrating chemicals into an organic film to deform it while the claims of the current application recite that an organic film is deformed by reflowing the layer which can include exposure to organic solvent.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant argues that application 11/329,452 does not teach reflowing at a temperature of 15-40 degree Centigrade. The claims of 11/329,452 recite deforming the layer to a "flowable mass" (see claim 2). The temperature range of 15-40 degree Centigrade includes room temperature which without further recitation the method of the claims of 11/329,452 appear to be occurring at room temperature.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


12. Any inquiry concerning this communication should be directed to Examiner K. Duda at (571) 272-1383. Official FAX communications should be sent to (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached at 571-272-1385.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public

Art Unit: 1756

PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kathleen Duda
Primary Examiner
Art Unit 1756